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REMARKS

This paper is responsive to the Non-Final Office Action dated July 13, 2005. Claims 1-3, 5-23, 25-27 and 30-36 were examined. Claims 1-3, 5-8, 10, 13-17, 19, 20, 23, 25 and 27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,794,901 to Bernstein, et al. Claims 11 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernstein. Claims 21 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernstein in view of U.S. Patent No. 6,366,132 to Karnik, et al. Claims 9, 18, 26, 35 and 36 are objected to as being dependent upon a rejected base claim. Claims 30-34 are allowed.

Claim Rejections - 35 U.S.C. § 102

Claims 1-3, 5-8, 10, 13-17, 19, 20, 23, 25 and 27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Bernstein. Claim 1 is amended to recite

wherein the effective strength of the keeper circuit operating on the dynamic node is restored to the first non-zero strength level after arrival of a latest signal transitioning to a level that can discharge the dynamic node.

Applicants respectfully maintain that Bernstein, alone or in combination with other references of record, fails to teach the limitations of amended claim 1. In particular, Bernstein teaches an enhanced immunity mode, which is enabled by the EI bit of register 215 (col. 3, line 66-col. 4, line 3; col. 4, lines 56-63). Bernstein teaches further that "[t]he EI bit may be fixed when the integrated circuit chip is fabricated or may be changed dynamically as the Qcrit required of dynamic gate circuits 200, 300, and 400 change over time" (col. 6, lines 9-12, emphasis added). Neither fixing the keeper circuit of Bernstein in the enhanced immunity mode during fabrication nor selecting the enhanced immunity mode after long-term drift of the required Qcrit teaches or suggests reducing the effective strength of a keeper circuit from a first non-zero strength level to a second non-zero strength level during an interval in which at least one path in an evaluation circuit is sensitive to a keeper device and restoring the effective strength of the keeper circuit to the

PATENT

first non-zero strength level after arrival of a latest signal transitioning to a level that can discharge the dynamic node, as required by amended claim 1.

Regarding Allen, which the Office Action states also teaches the Applicants' invention, Applicants respectfully maintain that Allen, alone or in combination with other references of record, fails to teach the limitations of amended claim 1. Allen teaches increasing feedback current to a dynamic node in response to a selection signal representing a test mode and a normal operation mode (col. 3, line 65-col. 4, line 2). The changing of a feedback current supplied to a dynamic node during different modes of operation fails to teach or suggest reducing the effective strength of a keeper circuit from a first non-zero strength level to a second non-zero strength level during an interval in which at least one path in an evaluation circuit is sensitive to a keeper device and restoring the effective strength of the keeper circuit to the first non-zero strength level after arrival of a latest signal transitioning to a level that can discharge the dynamic node, as required by amended claim 1. For at least these reasons, Applicants respectfully maintain that amended claim 1 distinguishes over Bernstein, Allen, and all references of record. Accordingly, Applicants respectfully request that the rejection of claim 1 and all claims dependent thereon, be withdrawn.

Claim 5 is amended to recite

wherein the first interval begins before arrival of an earliest signal transitioning to a level that can discharge the dynamic node and wherein the second interval begins after arrival of a latest signal transitioning to a level that can discharge the dynamic node.

Applicants respectfully maintain that Bernstein, alone or in combination with other references of record, fails to teach the limitations of amended claim 5. In particular, Bernstein teaches an enhanced immunity mode, which is enabled by the EI bit of register 215 (col. 3, line 66-col. 4, line 3; col. 4, lines 56-63). Bernstein teaches further that "[t]he EI bit may be fixed when the integrated circuit chip is fabricated or may be changed dynamically as the Qcrit required of dynamic gate circuits 200, 300, and 400 change over

PATENT

time” (col. 6, lines 9-12, emphasis added). Neither fixing the keeper circuit of Bernstein in the enhanced immunity mode nor selecting the enhanced immunity mode after long-term drift of the required Q_{crit} teaches or suggests a keeper circuit having a first non-zero strength during a first interval and a second non-zero strength during a second interval, the first interval beginning before arrival of an earliest signal transitioning to a level that can discharge the dynamic node and the second interval beginning after arrival of a latest signal transitioning to a level that can discharge the dynamic node, as required by amended claim 5.

Regarding Allen, which the Office Action states also teaches the Applicants' invention, Applicants respectfully maintain that Allen, alone or in combination with other references of record, fails to teach the limitations of amended claim 1. Allen teaches increasing feedback current to a dynamic node in response to a selection signal representing a test mode and a normal operation mode (col. 3, line 65-col. 4, line 2). The changing of a feedback current supplied to a dynamic node during different modes of operation fails to teach or suggest a keeper circuit having a first non-zero strength during a first interval and a second non-zero strength during a second interval, the first interval beginning before arrival of an earliest signal transitioning to a level that can discharge the dynamic node and the second interval beginning after arrival of a latest signal transitioning to a level that can discharge the dynamic node, as required by amended claim 5. For at least these reasons, Applicants respectfully maintain that amended claim 5 distinguishes over Bernstein, Allen, and all references of record. Accordingly, Applicants respectfully request that the rejection of claim 5 and all claims dependent thereon, be withdrawn.

Claim 23 is amended to recite

effectively enabling the first keeper device after arrival of a latest signal transitioning to a level that can discharge the dynamic node.

Applicants respectfully maintain that Bernstein, alone or in combination with other references of record, fails to teach or suggest the limitations of amended claim 23. In particular, Bernstein teaches an enhanced immunity mode, which is enabled by the EI bit of register 215 (col. 3, line 66-col. 4, line 3; col. 4, lines 56-63). Bernstein teaches further

PATENT

that “[t]he EI bit may be fixed when the integrated circuit chip is fabricated or may be changed dynamically as the Qcrit required of dynamic gate circuits 200, 300, and 400 change over time” (col. 6, lines 9-12, emphasis added). Neither fixing the keeper circuit of Bernstein in the enhanced immunity mode during fabrication nor selecting the enhanced immunity mode after long-term drift of the required Qcrit teaches or suggests effectively enabling the first keeper device after arrival of a latest signal transitioning to a level that can discharge the dynamic node, as required by amended claim 23.

Regarding Allen, which the Office Action states also teaches the Applicants' invention, Applicants respectfully maintain that Allen, alone or in combination with other references of record, fails to teach the limitations of amended claim 23. Allen teaches increasing feedback current to a dynamic node in response to a selection signal representing a test mode and a normal operation mode (col. 3, line 65-col. 4, line 2). The changing of a feedback current supplied to a dynamic node during different modes of operation fails to teach or suggest effectively enabling the first keeper device after arrival of a latest signal transitioning to a level that can discharge the dynamic node, as required by amended claim 23. For at least these reasons, Applicants respectfully maintain that amended claim 23 distinguishes over Bernstein, Allen, and all references of record. Accordingly, Applicants respectfully request that the rejection of claim 23 and all claims dependent thereon, be withdrawn.

Claim 25 is amended to recite

restoring the effective keeper circuit strength to the first non-zero strength after arrival of a latest signal transitioning to a level that can discharge an associated dynamic node.

Applicants respectfully maintain that Bernstein, alone or in combination with other references of record, fails to teach or suggest the limitations of amended claim 25. In particular, Bernstein teaches an enhanced immunity mode, which is enabled by the EI bit of register 215 (col. 3, line 66-col. 4, line 3; col. 4, lines 56-63). Bernstein teaches further that “[t]he EI bit may be fixed when the integrated circuit chip is fabricated or may be changed dynamically as the Qcrit required of dynamic gate circuits 200, 300, and 400

PATENT

change over time” (col. 6, lines 9-12, emphasis added). Neither fixing the keeper circuit of Bernstein in the enhanced immunity mode during fabrication nor selecting the enhanced immunity mode after long-term drift of the required Qcrit teaches or suggests restoring the effective keeper circuit strength to the first non-zero strength after arrival of a latest signal transitioning to a level that can discharge an associated dynamic node, as required by amended claim 25.

Regarding Allen, which the Office Action states also teaches the Applicants’ invention, Applicants respectfully maintain that Allen, alone or in combination with other references of record, fails to teach the limitations of amended claim 25. Allen teaches increasing feedback current to a dynamic node in response to a selection signal representing a test mode and a normal operation mode (col. 3, line 65-col. 4, line 2). The changing of a feedback current supplied to a dynamic node during different modes of operation fails to teach or suggest restoring the effective keeper circuit strength to the first non-zero strength after arrival of a latest signal transitioning to a level that can discharge an associated dynamic node, as required by amended claim 25. For at least these reasons, Applicants respectfully maintain that amended claim 25 distinguishes over Bernstein, Allen, and all references of record. Accordingly, Applicants respectfully request that the rejection of claim 25 and all claims dependent thereon, be withdrawn.

Claim 27 is amended to recite

means for effectively enabling the first keeper device
after arrival of a latest signal transitioning to a
level that can discharge the dynamic node.

Applicants respectfully maintain that Bernstein, alone or in combination with other references of record, fails to teach or suggest the limitations of amended claim 27. In particular, Bernstein teaches an enhanced immunity mode, which is enabled by the EI bit of register 215 (col. 3, line 66-col. 4, line 3; col. 4, lines 56-63). Bernstein teaches further that “[t]he EI bit may be fixed when the integrated circuit chip is fabricated or may be changed dynamically as the Qcrit required of dynamic gate circuits 200, 300, and 400 change over time” (col. 6, lines 9-12, emphasis added). Neither fixing the keeper circuit of Bernstein in the enhanced immunity mode during fabrication nor selecting the

PATENT

enhanced immunity mode after long-term drift of the required Qcrit teaches or suggests means for effectively enabling the first keeper device after arrival of a latest signal transitioning to a level that can discharge the dynamic node, as required by amended claim 27.

Regarding Allen, which the Office Action states also teaches the Applicants' invention, Applicants respectfully maintain that Allen, alone or in combination with other references of record, fails to teach the limitations of amended claim 27. Allen teaches increasing feedback current to a dynamic node in response to a selection signal representing a test mode and a normal operation mode (col. 3, line 65-col. 4, line 2). The changing of a feedback current supplied to a dynamic node during different modes of operation fails to teach or suggest means for effectively enabling the first keeper device after arrival of a latest signal transitioning to a level that can discharge the dynamic node, as required by amended claim 27. For at least these reasons, Applicants respectfully maintain that amended claim 27 distinguishes over Bernstein, Allen, and all references of record. Accordingly, Applicants respectfully request that the rejection of claim 27 and all claims dependent thereon, be withdrawn.

Claim Rejections - 35 U.S.C. § 103

Claims 11 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernstein. Applicants believe that claims 11 and 12 depend from an allowable claim and are allowable for at least this reason.

Claims 21 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bernstein, et al. in view of U.S. Patent No. 6,366,132 to Karnik, et al. Applicants believe that claims 21 and 22 depend from allowable claims and are allowable for at least this reason

Allowable Subject Matter


Applicants appreciate the indication of allowable subject matter in claims 9, 18, 26, 35 and 36. Applicants believe that claims 9, 18, 26, 35 and 36 depend from allowable claims and are allowable for at least this reason.

Applicants appreciate the allowance of claims 30-34.

PATENT

Summary

Claims 1-3, 5-23, 25-27 and 30-36 are in the case. All claims are believed to be allowable over the art of record, and a Notice of Allowance to that effect is respectfully solicited. Nonetheless, if any issues remain that could be more efficiently handled by telephone, the Examiner is requested to call the undersigned at the number listed below.

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Respectfully submitted,



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